CLAIMS

1. An electrode catalyst, comprising:

a conductive carrier, and

a mixture containing a particulate noble metal and at least one particulate rare-earth oxide, the mixture being supported on said conductive carrier

wherein said particulate rare-earth oxide has an alkaline-earth metal as solid solution therein.

2. The electrode catalyst according to claim 1, wherein said conductive carrier is a particulate carb on.

3. The electrode catalyst according to claim 1 or 2, wherein said noble metal is silver, platinum, or palladium.

4. The electrode catalyst according to claim 1 or 2, wherein said noble metal is silver.

5. The electrode catalyst according to any of claims 1 to 4, wherein the molar ratio of said noble metal to said rare-earth oxide is from 1 : 0.01 to 1 : 4.0.

6. The electrode catalyst according to any of claims 1 to 5, wherein said rare-earth oxide is cerium oxide.

7. The electrode catalyst according to any of claims 1 to 6, wherein said alkaline-earth metal is at least one selected from a group consisting of magnesium, calcium, and strontium.

8. The electrode catalyst according to claim 6,

wherein the molar ratio of said cerium oxide to said alkaline-earth metal is from 1 : 0.005 to 1 : 0.3.

9. The electrode catalyst according to any of claims 1 to 8 for use in a gas diffusion electrode for brine electrolysis.

10. A gas diffusion electrode for brine electrolysis, characterized by use of the electrode catalyst according to any of claims 1 to 9.

11. An electrode catalyst comprising a conductive carrier, and a mixture containing a particulate noble metal and at least one particulate rare-earth oxide, the mixture being supported on the conductive carrier.

12. A process for preparing a gas diffusion electrode for brine electrolysis comprising laminating a reaction layer containing the electrode catalyst according to any of claims 1 to 9, a gas diffusion layer containing a conductive carrier, and a collector.

13. Use of the electrode catalyst according to any of claims 1 to 9 in a gas diffusion electrode for brine electrolysis.

14. A method for using the electrode catalyst according to any of claims 1 to 9, characterized in . that the electrode catalyst is used as a catalyst component for the reaction layer of a gas diffusion electrode for brine electrolysis.

15. A method for gas diffusion electrode-based brine electrolysis, comprising using the electrode catalyst according to any of claims 1 to 9.